

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

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OPINION 454

Designation under the Plenary Powers of a type species
in harmony with accustomed usage for *Scolopendra*
Linnaeus, 1758 (Class Chilopoda)

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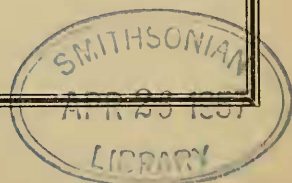
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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 454

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(16th December 1954)

OPINION 454

DESIGNATION UNDER THE PLENARY POWERS OF A TYPE SPECIES IN HARMONY WITH ACCUSTOMED USAGE FOR "SCOLOPENDRA" LINNAEUS, 1758 (CLASS CHILOPODA)

RULING :—(1) Under the Plenary Powers (a) all type-selections for the genus *Scolopendra* Linnaeus, 1758 (Class Chilopoda) made prior to the present Ruling are hereby set aside and (b) the nominal species *Scolopendra morsitans* Linnaeus, 1758, is hereby designated to be the type species of the genus so named.

(2) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* with the Name Numbers severally specified below :—

(a) *Scolopendra* Linnaeus, 1758 (gender : feminine) (type species, by designation under the Plenary Powers in (1)(b) above : *Scolopendra morsitans* Linnaeus, 1758) (Name No. 1065) ;

(b) *Lithobius* [Leach], [1814] (gender : masculine) (type species, by selection by Latreille, (1831) : *Scolopendra forficata* Linnaeus, 1758) (Name No. 1066).

(3) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* with the Name Numbers severally specified below :—

(a) *morsitans* Linnaeus, 1758, as published in the combination *Scolopendra morsitans* (specific name of type species of *Scolopendra* Linnaeus, 1758) (Name No. 1142) ;

(b) *forficata* Linnaeus, 1758, as published in the combination *Scolopendra forficata* (specific name of type species of *Lithobius* [Leach], [1814]) (Name No. 1143).

(4) The under-mentioned family-group names are hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Numbers severally specified below :—

- (a) SCOLOPENDRIDAE [Leach], [1814] (type genus : *Scolopendra* Linnaeus, 1758) (Name No. 143) ;
- (b) LITHOBIIDAE Newport, 1844 (type genus : *Lithobius* [Leach], [1814]) (Name No. 144).

I. THE STATEMENT OF THE CASE

On 1st June 1954 Dr. Ralph E. Crabill, Jr. (*Department of Biology, Saint Louis University, St. Louis, Missouri, U.S.A.*) addressed a preliminary communication to the Office of the Commission on the question of the need for securing the continued use of the generic name *Scolopendra* Linnaeus, 1758 (Class Chilopoda) in its accustomed sense. This led to the submission to the International Commission on Zoological Nomenclature by Dr. Crabill on 5th January 1955 of the following request for the use of the Plenary Powers for the purpose of designating for the foregoing genus of a type species in harmony with accepted usage :—

**Proposed use of the Plenary Powers to designate for the genus
“Scolopendra” Linnaeus, 1758 (Class Chilopoda) a type species
in harmony with accustomed usage**

By RALPH E. CRABILL, Jr.

(*Saint Louis University, St. Louis, Missouri, U.S.A.*)

The purpose of the present application is to ask the International Commission to use its Plenary Powers to designate for the genus *Scolopendra* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) 1 : 637) (Class Chilopoda) a type species in harmony with accustomed usage and

thus to prevent the appalling dislocation in the nomenclature of this group, a dislocation which would extend to the family-name and ordinal-name levels, which would result if the normal provisions of the *Règles* were to be allowed to apply in the present case. The facts are set out briefly in the following paragraphs.

2. In 1758 Linnaeus recognised a single genus of chilopods, namely *Scolopendra* Linnaeus, to which he referred nine nominal species. Of these species, the third and fifth (both named on page 638) were *Scolopendra forficata* and *Scolopendra morsitans* respectively. Naturally, Linnaeus designated no type species. The first included species to be selected as the type species by a subsequent author was *Scolopendra forficata* Linnaeus which was so selected by Latreille in 1810 (*Consid. gén. Anim. Crust. Arach. Ins.* : 423, 112).

3. The foregoing type-selection for the genus *Scolopendra* Linnaeus is totally at variance with current usage, the species *Scolopendra forficata* Linnaeus being placed now (as shown in paragraph 4 below) in the family LITHOBIIDAE. In 1891 Pocock (*Ann. Mag. nat. Hist.* (6) 7 : 229) stated that *Scolopendra morsitans* Linnaeus, 1758, was the type species of *Scolopendra* Linnaeus. This statement was incorrect under the *Règles* in view of the prior action by Latreille in 1810, but it corresponded with the then well-established concept of the genus *Scolopendra*, a concept which has remained unchanged to this day. The genus *Scolopendra*, so interpreted, is the type genus of the family SCOLOPENDRIDAE, which was established by George Newport as long ago as 1844 (April 1844, *Proc. linn. Soc. Lond.* 1844(20) : 192 ; *id.*, [post-April] 1844, *Trans. linn. Soc. Lond.* 19 : 275).

4. In a paper published anonymously in [1814] (Brewster's *Edinburgh Ency.* 7(2) : 408) Leach established a new nominal genus to which he gave the name *Lithobius*. Leach placed in this genus a number of species, including *Scolopendra forficata* Linnaeus, 1758. He did not designate a type species for this genus. The first author to select a type species was Latreille who in 1831 (*Cours d'Entomol.*, Ann. 1 : 568) so selected *Scolopendra forficata* Linnaeus. This selection is in harmony with current usage, and this interpretation of the genus *Lithobius* forms the basis of the currently accepted family LITHOBIIDAE Newport (G.), April 1844 (*Proc. linn. Soc. Lond.* 1844(20) : 192 ; *id.*, [post-April] 1844, *Trans. linn. Soc. Lond.* 19 : 275, 360).

5. It will be seen from the particulars given in the preceding paragraphs that the generic names *Scolopendra* Linnaeus, 1758, and *Lithobius* [Leach], [1814], are objective synonyms of one another, that accordingly under the normal operation of the *Règles*, the name *Lithobius* [Leach] would disappear in synonymy, and the name *Scolopendra* Linnaeus would need to be used for the genus now universally known as *Lithobius*. Unless means can be found to preserve

the name *Lithobius* for the group of species now universally associated with it, the most devastating changes will be involved, these changes affecting not only two generic names but also two family-group names and the names of two of the four chilopod Orders. In that event not only would the well-known family currently called the LITHOBIIDAE lose that name, but—and this would be even more confusing—would need in future to be known by the name SCOLOPENDRIDAE. In that event also the Ordinal name Lithobiomorpha would disappear in synonymy. The genus now known as *Scolopendra* Linnaeus would probably have to be called by the name *Rhombocephalus* Newport, April 1844 (*Proc. linn. Soc. Lond.* 1844(20) : 193 ; [post-April] 1844, *Trans. linn. Soc. Lond.* 19 : 275) and the corrected family-group and Ordinal names for this genus would probably become RHOMBOCEPHALIDAE and Rhombocephalomorpha respectively. In other words, one hundred and forty years of terminology, which has become widely established in general, as well as in technical, works and which involves names which have become tokens of the Chilopoda for naturalists, would be overturned.

6. The incorrect nomenclature currently in use has become so firmly entrenched in the literature over so long a period of years that nothing but confusion would result if an attempt were now to be made to apply the ordinary rules in this case. I therefore now ask the International Commission :—

- (1) to use its Plenary Powers (a) to set aside all type-selections for the genus *Scolopendra* Linnaeus, 1758, made prior to the Ruling now asked for, and (b), having done so, to designate *Scolopendra morsitans* Linnaeus, 1758 to be the type species of the foregoing genus ;
- (2) to place the under-mentioned generic names on the *Official List of Generic Names in Zoology* :—
 - (a) *Scolopendra* Linnaeus, 1758 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b) above : *Scolopendra morsitans* Linnaeus, 1758) ;
 - (b) *Lithobius* [Leach], [1814] (gender : masculine) (type species, by selection by Latreille (1831) : *Scolopendra forficata* Linnaeus, 1758) ;
- (3) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—
 - (a) *morsitans* Linnaeus, 1758, as published in the combination *Scolopendra morsitans* (specific name of type species of *Scolopendra* Linnaeus, 1758) ;
 - (b) *forficata* Linnaeus, 1758, as published in the combination *Scolopendra forficata* (specific name of type species of *Lithobius* [Leach], [1814]) ;

(4) to place the under-mentioned family-group names on the *Official List of Family-Group Names in Zoology* :—

(a) LITHOBIIDAE Newport, 1844 (type genus : *Lithobius* [Leach], [1814]) ;

(b) SCOLOPENDRIDAE Newport, 1844 (type genus : *Scolopendra* Linnaeus, 1758).

II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Upon the receipt of Dr. Crabill's preliminary communication in 1954 the question of the designation of a type species in harmony with accustomed usage for the genus *Scolopendra* Linnaeus, 1758, was allotted the Registered Number Z.N.(S.) 843.

3. Publication of the present application : The present application was sent to the printer on 19th January 1955 and was published on 28th February in the same year in Part 4 of Volume 11 of the *Bulletin of Zoological Nomenclature* (Crabill, 1955, *Bull. zool. Nomencl.* **11** : 134—136).

4. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 28th February 1955 (a) in Part 4 of Volume 11 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Crabill's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to four general zoological serial publications.

5. Support received for the present application : The present application aroused an exceptionally large amount of support, no

less than twenty-four specialists notifying the Office of the Commission of their support for the action recommended in the present case. The distribution of these comments by countries was as follows : (a) U.S.A. (thirteen) ; (b) Canada (three) ; (c) Brazil (two) ; (d) England (two) ; (e) Finland (one) ; (f) Germany (one) ; (g) Hawaii (one) ; (h) Taiwan (one). The twenty-one communications in which these comments were received are reproduced in the immediately following paragraphs.

6. Support received from Nell B. Causey (University of Arkansas, Fayetteville, Arkansas, U.S.A.) : On 14th April 1955 Dr. Nell B. Causey (*University of Arkansas, Fayetteville, Arkansas, U.S.A.*) sent the following letter of support to the Office of the Commission (Causey, 1955, *Bull. zool. Nomencl.* **11** : 268) :—

As a myriapodologist, I want to urge that the International Commission use its Plenary Powers as requested in Z.N.(S.) 843. Dr. Crabill's historical account of the case is correctly presented. There would indeed be systematic confusion if the normal provisions of the *Règles* were applied, although I am sceptical about its resulting in "devastating changes", which seems a term better associated with hydrogen bombs than with myriapods.

7. Support received from Clarence J. Goodnight (Purdue University, Lafayette, Indiana, U.S.A.) : On 15th April 1955 Dr. Clarence J. Goodnight (*Purdue University, Lafayette, Indiana U.S.A.*) addressed the following letter of support to the Office of the Commission (Goodnight, 1955, *Bull. zool. Nomencl.* **11** : 268) :—

I am writing concerning the proposed disposition of the well-known chilopodous generic names *Scolopendra* Linnaeus and *Lithobius* Leach.

I believe that Dr. Ralph E. Crabill's proposed solution of this problem is valid and will result in greater stability than will a strict adherence to the Laws of Priority. As Dr. Crabill points out, if priority is followed in this case, the names of two well known families will be changed and the names of two of the four chilopod orders would also be changed. Further, there is a large amount of biological literature

involving animals in these two genera. Similarly there are names commonly in use among general zoologists and textbook writers. If these names should change, much of the literature would be unusable to the general zoologist without a thorough search of synonymy.

Therefore in the interests of stability, I hope that the International Commission will use its Plenary Powers to retain the names *Scolopendra* and *Lithobius* in the manner in which they are now commonly used. I hope you will view Dr. Crabill's request in a favorable light.

8. Support received from Katherine V. W. Palmer (Paleontological Research Institution, Ithaca, N.Y., U.S.A.): On 18th April 1955 Mrs. Katherine V. W. Palmer (*Paleontological Research Institution, Ithaca, N.Y., U.S.A.*) addressed the following letter of support to the Office of the Commission (Palmer, 1955, *Bull. zool. Nomencl.* **11** : 268—269) :—

Ralph E. Crabill, Jr., has asked, at your request, that I study and send comments to you in regard to his proposal, *Bull. zool. Nomencl.*, vol. 11, pt. 4, February 1955.

The proposal requests that the International Commission on Zoological Nomenclature use its Plenary Powers to set aside all type designations for the genus *Scolopendra* Linnaeus, 1758, prior to the Ruling asked for, including the type designation of Latreille, 1810, of *Scolopendra forficata* Linnaeus, 1758, for *Scolopendra* Linnaeus, 1758, and to designate *S. morsitans* Linn., 1758, type species of *Scolopendra* Linn., 1758. From the pertinent and concise information given in regard to the problem, it would certainly seem that to replace the established usage of the type species, *Scolopendra morsitans* Linnaeus, 1758, for *Scolopendra* Linnaeus, 1758, by the legitimate type species, *S. forficata* Linnaeus, 1758, would cause confusion and a great deal of extra work and writing to clarify the situation from the specific to the ordinal level.

I am not in favor of overruling the law of priority in the usual case but in a problem such as stated by Mr. Crabill, more harm would be done by a strict application of the rule than following long established usage. One point in this case which also is in favor of establishing by Plenary Power, *S. morsitans* Linnaeus, 1758, type species of *Scolopendra* Linnaeus, 1758, is the fact that, according to the data presented by Mr. Crabill, paragraphs 2 and 4, Latreille designated the same species *S. forficata* Linnaeus, 1758, for two different genera—for *Scolopendra* Linn., in 1810, and in 1831 for *Lithobius* Leach, 1814. If Latreille made an error of designation in his own writings and did not take the opportunity in 1831 to correct the later type designation

and restore the use of the prior designation for *Scolopendra* Linn., it would seem that the use of Plenary Powers to designate for the genus *Scolopendra* Linnaeus, 1758, a type species in harmony with accustomed usage would serve science to the best advantage.

9. Support received from four specialists in the American Museum of Natural History, New York, U.S.A.) : On 18th April 1955 four specialists in the American Museum of Natural History, New York, U.S.A. (Dr. Mont A. Cazier, Dr. C. H. Curran, Dr. Willis J. Gertsch and Dr. Frederick H. Rindge) sent the following letter of support to the Office of the Commission (Cazier *et al.*, 1955, *Bull. zool. Nomencl.* **11** : 269) :—

We have read with very great interest the separate entitled " Proposed use of the Plenary Powers to Designate for the Genus *Scolopendra* Linnaeus, 1758 (Class Chilopoda) a Type Species with Accustomed Usage ".

It is always a hardship when strict adherence to the rules makes it necessary to change familiar long used names for older legal ones. I have talked to all the members of our department and they are in complete sympathy with the aim of this application to maintain the genus *Scolopendra* in its familiar usage. We echo the words in the proposal that in this case nothing but confusion would result if an attempt were to be made to apply the ordinary rules.

We urge the International Commission to follow the recommendations of Dr. Ralph E. Crabill in section six of the separate.

10. Support received from J. L. Cloudsley-Thompson (University of London) : On 25th April 1955 Dr. J. L. Cloudsley-Thompson (*University of London*) addressed the following letter of support to the Office of the Commission (Cloudsley-Thompson, 1955, *Bull. zool. Nomencl.* **11** : 269) :—

I write in strong support of Dr. R. E. Crabill's suggestion that a type species be designated for the genus *Scolopendra* Linnaeus, 1758.

Every effort should be made to prevent the alarming possibilities envisaged by him in paragraph 5 which would result in absolute confusion if applied even by only a few workers on Chilopoda. The conventional nomenclature must be regularised as Dr. Crabill suggests.

11. Support received from John D. Dwyer (Saint Louis University, Saint Louis, Missouri, U.S.A.) : On 25th April 1955 Dr. John D. Dwyer (*Saint Louis University, Saint Louis, Missouri, U.S.A.*) addressed the following letter of support to the Office of the Commission (Dwyer, 1955, *Bull. zool. Nomencl.* **11** : 269—270) :—

With reference to Dr. Crabill's recent recommendation, I would like to express my approval of his proposal that the International Commission exercise its Plenary Powers as he outlined. It appears that this action will prevent a possible disruption of well-established names ; such changes would appear not to serve the cause of taxonomy in a positive manner.

12. Support received from W. Wayne Boyle (University of Hawaii, Honolulu, Hawaii) : On 25th April 1955 Dr. W. Wayne Boyle (*University of Hawaii, Honolulu, Hawaii*) addressed the following letter of support to the Office of the Commission (Boyle, 1955, *Bull. zool. Nomencl.* **11** : 270) :—

Dr. Ralph E. Crabill, Jr., has asked me to communicate to you my comments regarding his recent recommendation on chilopod nomenclature to the Commission.

Although I am not a chilopod specialist (my own interests lying with the Coleoptera and Acarina), Dr. Crabill's problem seems clear cut in all details. Indeed, it would appear that in just such cases the Plenary Powers of the Commission could be used to the best interests of zoological nomenclature. It is my considered opinion, therefore, that the Commission accept Dr. Crabill's recommendation in all details and duly act thereon under the Plenary Powers.

13. Support received from George E. Ball (University of Alberta, Edmonton, Alberta, Canada) : On 26th April 1955 Dr. George E. Ball (*University of Alberta, Edmonton, Alberta, Canada*) addressed the following letter of support to the Office of the Commission (Ball, 1955, *Bull. zool. Nomencl.* **11** : 270) :— .

It is my opinion that Crabill's request to conserve the names *Lithobius* and *Scolopendra* as currently used is a reasonable one. I

heartily endorse the course of action that he suggests be taken and feel that Crabill is to be congratulated in this case for not adhering to the Rule of Priority.

14. Support received from Otto Kraus (Senckenbergische Naturforschende Gesellschaft, Frankfurt a. M., Germany) : On 27th April 1955 Dr. Otto Kraus (*Senckenbergische Naturforschende Gesellschaft, Frankfurt a. M., Germany*) addressed the following letter of support to the Office of the Commission (Kraus, 1955, *Bull. zool. Nomencl.* **11** : 270) :—

Hiermit unterstütze ich die von Herrn R. E. Crabill in *Bull. zool. Nomencl.* **11**(4) : 134—136 vorgeschlagene Lösung in der Angelegenheit *Scolopendra Lithobius*.

15. Support received from T. J. Spilman (United States Department of Agriculture, U.S. National Museum, Washington, D.C., U.S.A.) : On 29th April Dr. T. J. Spilman (*United States Department of Agriculture, U.S. National Museum, Washington, D.C., U.S.A.*) addressed the following letter of support to the Office of the Commission (Spilman, 1955, *Bull. zool. Nomencl.* **11** : 270) :—

This proposed exception to priority in subsequent type species selection appears well founded, and fulfilment of all four pleas will avoid an upheaval in chilopod nomenclature. I therefore, stand in agreement with the proposal and urge its adoption.

Plenary Powers, I feel, have been used much too often in the past and for many cases not warranting their usage. The Law of Priority should be set aside only in cases where *major* changes would occur or where long and widespread nomenclatorial usages would be affected. I would, therefore, plea for more restraint in use of the Powers.

16. Support received from Curtis W. Sabrosky (United States Department of Agriculture, U.S. National Museum, Washington, D.C., U.S.A.) : On 2nd May 1955 Dr. Curtis W. Sabrosky (*United States Department of Agriculture, U.S. National Museum,*

Washington, D.C., U.S.A.) addressed the following letter of support to the Office of the Commission (Sabrosky, 1955, *Bull. zool. Nomencl.* **11** : 271) :—

Dr. R. E. Crabill, Jr., has sent me a copy of his application on *Scolopendra* and asked for comments.

Although not directly interested in the group, my attention was drawn to the change in usage of family names, a reversal which would certainly contribute to confusion without any compensating gain. On this basis, I support the application.

I note that Dr. Crabill mentions ordinal names, but the Code does not provide that ordinal names be linked with family names and follow the latter in and out of synonymy. However, if the application is approved, this point will not cause any difficulty.

17. Support received from John C. Martin (Department of Agriculture, Belleville, Ontario, Canada) : On 5th May 1955 Dr. John C. Martin (*Department of Agriculture, Belleville, Ontario, Canada*) addressed the following letter of support to the Office of the Commission (Martin, 1955, *Bull. zool. Nomencl.* **11** : 271) :—

It has been my policy to follow the *Règles Internationales* with regard to zoological nomenclature realising that with the passage of time, little or much as the individual cases may require, the confusion which has and still exists in many quarters of this field of biological nomenclature would be resolved. However, one must not adhere stubbornly to an ideal, particularly if in order to bring it to pass, a chaotic state worse than the existing condition is brought into existence, especially if there are means of avoiding it. In the case of zoological nomenclature, the Plenary Powers of the International Commission provide such means of preventing additional chaos.

With regard to the problem in question (Z.N.(S.) 843) it is obvious that if the *Règles* were followed two well-known generic names, *Lithobius* Leach, 1814, and *Scolopendra* Linnaeus, 1758, two family-group names and the names of two of the four chilopod Orders would be affected. The present situation which has existed in whole or in

part for some one hundred and forty years has become widely established in technical and general works. Any change would cause much confusion and hence I support the four requests (*vide* Z.N.(S.) 843 Para. 6) made by Dr. R. E. Crabill, Jr.

18. Support received from Stanley I. Auerbach (Oak Ridge National Laboratory, Oak Ridge, Tennessee, U.S.A.) : On 5th May 1955 Dr. Stanley I. Auerbach (*Oak Ridge National Laboratory, Oak Ridge, Tennessee, U.S.A.*) addressed the following letter of support to the Office of the Commission :—

After reading Dr. Crabill's arguments for retaining the generic names *Scolopendra* and *Lithobius*, I fully agree with him. I think that Dr. Crabill is to be commended for pointing out this situation and making this serious attempt to rectify it. Those of us who have been working with the Chilopoda have taken it almost for granted that the names as now used were strictly according to the Rules. As he points out, if we were to adhere strictly to the Rules and transfer *Scolopendra* to *Lithobius* and *Lithobius* to synonymy, the results, as far as the specialists in the group are concerned, would be almost catastrophic. All of the major monographs written in the last 75 years are based on the usage which Dr. Crabill now asks the Commission to legalize.

In view of the foregoing, I urge that the Commission adopt Dr. Crabill's petitions.

19. Support received from Ernst Palmén (Zoological Institute, Helsinki University, Helsinki, Finland) : On 10th May 1955 Dr. Ernst Palmén (*Zoological Institute, Helsinki University, Helsinki, Finland*) addressed the following letter of support to the Office of the Commission (Palmén, 1955, *Bull. zool. Nomencl.* 11 : 271) :—

It is with great interest that I have read the paper by Dr. Crabill, and can but state that his suggestion seems quite acceptable. Obviously the change of the generic names would in this case cause extraordinarily great confusions, not only among specialists of the Chilopoda, but also among naturalists in general. There seems to be no reason why the Plenary Powers of the International Commission should not

be used in a case where the advantages of accepting Dr. Crabill's proposal are as obvious as in the present case. Therefore I would like to recommend his suggestion warmly. The matter has been described thoroughly in the communication by Dr Crabill and does not, in my opinion, need further comments.

20. Support received from Howard E. Evans (New York State College of Agriculture at Cornell University, Ithaca, N.Y., U.S.A.) : On 17th May 1955 Dr. Howard E. Evans (*New York State College of Agriculture at Cornell University, Ithaca, N. Y., U.S.A.*) addressed the following letter of support to the Office of the Commission :—

Dr. R. E. Crabill, Jr., of Saint Louis University, has asked me to write you concerning his application to the Commission regarding the generic name of *Scolopendra* (Chilopoda). I have read Dr. Crabill's arguments and wish to express my complete agreement with them. I feel that not to conserve the name *Scolopendra* in its traditional sense would result in a great deal of confusion, especially since this generic name is widely used in general biology.

21. Support received from Henry Dybas (Chicago Natural History Museum, Chicago, Illinois, U.S.A.) : On 27th May 1955 Dr. Henry Dybas (*Chicago Natural History Museum, Chicago, Illinois, U.S.A.*) addressed the following letter of support to the Office of the Commission :—

I have read Dr. Ralph Crabill's application concerning the names *Scolopendra* and *Lithobius* and wish to register my support for his request to the International Commission to exercise its Plenary Powers in this instance.

22. Support received from Walter W. Kempf (Seminário de Santo Antônio, Agudos, Brazil) : On 5th June 1955 Dr. Walter W. Kempf (*Seminário de Santo Antônio, Agudos, Brazil*) addressed the following letter of support to the Office of the Commission :—

I have received a paper by Dr. Ralph E. Crabill, Jr. (St. Louis, Miss., U.S.A.) published in the *Bull. zool. Nomencl.* containing an

application for the use of the Plenary Powers by the International Commission on Zoological Nomenclature in order to designate for the genus *Scolopendra* Linnaeus (1758) a type species in harmony with accustomed usage.

After having gone carefully over Dr. Crabill's application, I reached the following conclusions :

(1) The solution of the nomenclatorial problem, as proposed by the petitioner, doubtless necessitates the use of Plenary Powers by the International Commission. The type selection of *forficata* L. for *Scolopendra* L. (1758) by Latreille (1810, *Consid. gén. Anim. Crust. Arach. Ins.* : 423, 112) must be taken as valid both according to the Rules and to *Opinions* 11 and 136, and, furthermore, antedates the selection of the type species (*morsitans* L.) of current established usage.

(2) The use of the Plenary Power in this case is highly commendable, on account of the overwhelming evidence, contained in, and eloquently stated by, the petitioner's application, that here, "the strict application of the Rules would clearly result in greater confusion than uniformity".

Hence I am very much in favor of Dr. Crabill's application and wholeheartedly support his request, as stated in paragraph 6 in the above-mentioned paper.

23. Support received from Yu-hsi Moltze Wang (National Taiwan University, Taiwan) : On 22nd June 1955 Dr. Yu-hsi Moltze Wang (*National Taiwan University, Taiwan*) addressed the following letter of support to the Office of the Commission :—

After having read R. E. Crabill's application to ask the International Commission to use its Plenary Powers to designate for the genera

Scolopendra and *Lithobius* type species in harmony with accustomed usage, I agree with all his proposals.

24. Support received from W. R. M. Mason (Department of Agriculture, Ottawa, Canada) : On 24th June 1955 Dr. W. R. M. Mason (*Department of Agriculture, Ottawa, Canada*) addressed the following letter of support to the Office of the Commission :—

I have read the paper sent to me by Dr. Crabill of St. Louis University and find myself entirely in agreement with the views there expressed. I would be sorry to see the names *Scolopendra* and *Lithobius* altered in such drastic fashion as a strict application of the Rules would necessitate.

25. Support received from F. A. Turk (Camborne, Cornwall, England) : On 30th April 1956 Dr. F. A. Turk (*Camborne, Cornwall, England*) wrote a letter to the Office of the Commission in which, *inter alia*, he commented on the present case in the following terms :—

As you may know, I have also an interest in, and have published upon, the Myriapod Orders and recently Mr. R. E. Crabill of Missouri sent me his paper regarding the genus *Scolopendra*. I have read this carefully and in detail and I should like to record my opinion that the International Commission should act as Mr. Crabill asks. I agree with Mr. Crabill that failure to do this will result in appalling confusion in the nomenclature of the groups ; some of the earlier species of *Lithobius*, already obscure, would be placed in nearly inextricable confusion and, so far as I can see, to no good purpose.

26. Support received from Wolfgang Bücherl (Instituto Butantan, Sao Paulo, Brazil) : On 17th October 1956 Dr. Wolfgang

Bücherl (*Instituto Butantan, Sao Paulo, Brazil*) sent the following comment in support of the present application :—

Of course I will be inclined to adopt, after approbation by the members of the Commission on International Zoological Nomenclature, the names *Scolopendra* L., 1758, with the type species, *Scolopendra morsitans* L., 1758, and *Lithobius* [Leach], [1814], with the type species *Scolopendra forcicata* L., 1758.

27. No objection received : No objection to the action proposed in the present case was received from any source.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

28. Issue of Voting Paper V.P.(56)1 : On 27th January 1956 a Voting Paper (V.P.(56)1) was issued in which the Members of the Commission were invited to vote either for, or against, “ the proposal relating to the generic name *Scolopendra* Linnaeus, 1758, as set out in Points (1) to (4) in paragraph 6 on page 135 and the top of page 136 of Volume 11 of the *Bulletin of Zoological Nomenclature* ” [i.e. in the paragraph numbered as above in the paper reproduced in the first paragraph of the present *Opinion*].

29. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 27th April 1956.

30. Particulars of the Voting on Voting Paper V.P.(56)1 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)1 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-five (25) Commissioners (arranged in the order in which Votes were received) :*

Holthuis ; Vokes ; Hering ; Mayr ; Kühnelt ; Lemche ; Bradley (J.C.) ; do Amaral ; Dymond ; Stoll ; Jaczewski ; Prantl ; Key ; Bodenheimer ; Bonnet ; Mertens ; Riley ; Sylvester-Bradley ; Hemming ; Hankó ; Tortonese ; Esaki ; Boschma ; Cabrera ; Miller ;

(b) *Negative Votes :*

None ;

(c) *Voting Papers not returned :*

None.

31. Declaration of Result of Vote : On 28th April 1956 Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(56)1, signed a Certificate that the Votes cast were as set out in paragraph 30 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

32. Substitution on the “ Official List ” of an older reference for the family-group name based on the generic name “ Scolopendra ” Linnaeus, 1758, than the oldest such reference previously ascertained : On 20th November 1956 Mr. Hemming, as Secretary, executed the following Minute directing the substitution on the *Official List of Family-Group Names in Zoology* of the name SCOLOPENDRIDAE [Leach], [1814] for the later name SCOLOPENDRIDAE Newton (G.), 1844, which it had previously

been proposed to enter on that *List* as the oldest family-group name based on the foregoing generic name :—

Substitution on the “ Official List ” of an older reference for the family-group name based upon the generic name “ Scolopendra ” Linnaeus, 1758, than the oldest such reference previously ascertained

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

Since the grant by the International Commission of approval to the proposals relating to the generic name *Scolopendra* Linnaeus, 1758, and associated names submitted to it in connection with Voting Paper V.P.(56)1, the routine check-up of the bibliographical references for the names concerned carried out in the Office of the Commission in connection with the preparation of the *Opinion* required for giving effect to the decision so taken has brought to light the existence of an older reference for the family-group name based upon the foregoing generic name than the oldest such reference previously ascertained. At the time of the submission of the foregoing Voting Paper it was believed that the oldest such reference was SCOLOPENDRIDAE Newport (G.), 1844. It has now been ascertained that the same name was published in [1814] by Leach in an anonymous article in Volume 7 (: 434) of the *Edinburgh Encyclopaedia*.

2. Accordingly, as Secretary, I hereby direct that the name SCOLOPENDRIDAE [Leach], [1814], be entered on the *Official List of Family-Group Names in Zoology* in place of the later name SCOLOPENDRIDAE Newport, 1844, the name previously proposed for entry thereon.

33. Preparation of the Ruling given in the present “ Opinion ” :
On 22nd November 1956 Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(56)1, subject to the adjustment of the reference of the family-group name based on the generic name *Scolopendra* Linnaeus, 1758, in accordance with the directions given in the Minute executed by the Secretary on 20th November 1956, the text of which has been reproduced in the immediately preceding paragraph of the present *Opinion*.

34. Original References : The following are the original references for the generic and specific names placed on the *Official Lists* for names for taxa of those categories by the Ruling given in the present *Opinion* :—

forficata, *Scolopendra*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 638

Lithobius [Leach], [1814], in Brewster's *Edinb. Ency.* **7**(2) : 408

morsitans, *Scolopendra*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 638

Scolopendra Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 637

35. The following is the reference for the type selection for the genus *Lithobius* [Leach], [1814], specified in Section (2)(b) of the Ruling given in the present *Opinion* :—

Latreille, 1831, *Cours d'Entomol.*, Ann. **1** : 658.

36. The following are the original references for the family-group names placed on the *Official List* established for the names of taxa belonging to the family-group category :—

LITHOBIIDAE Newport (G.), April 1844, *Proc. linn. Soc. Lond.* 1844 (20) : 192 ; *id.*, [post-April] 1844, *Trans. linn. Soc. Lond.* **19** : 275, 360

SCOLOPENDRIDAE [Leach], [1814], in Brewster's *Edinb. Ency.* **7** : 434

37. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

38. The present *Opinion* shall be known as *Opinion* Four Hundred and Fifty-Four (454) of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-Second day of November, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING